KARUK TRIBE OF CALIFORNIA

WATER RESOURCES PROGRAM

WQ Activities & Projects

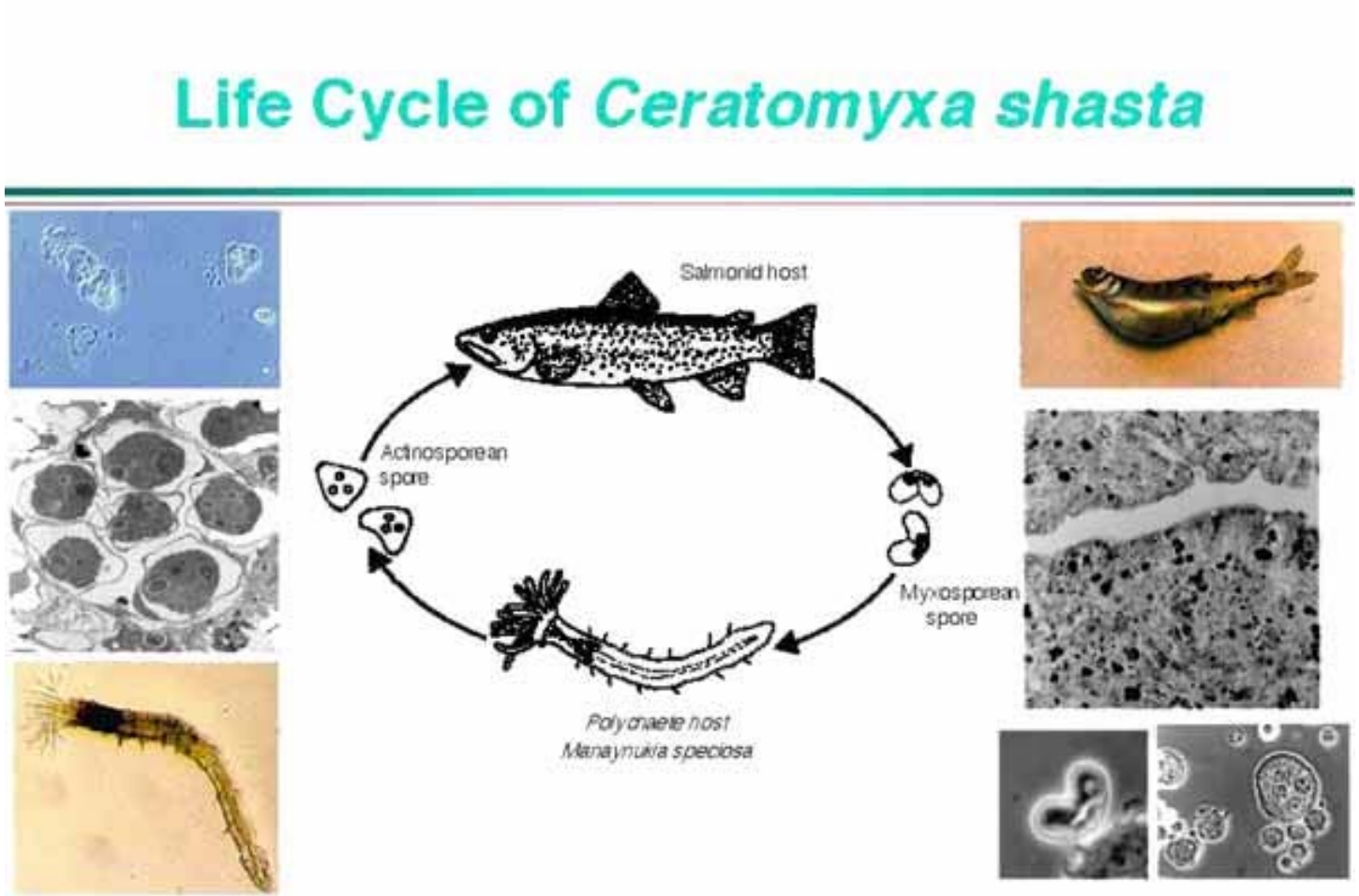
- Datasondes: mainstem & Tributaries
- Sondes: Winter turbidity & watersheds
- USFWS nutrient grabs
- FERC and TMDLs
- USFWS: reservoir turnover study
- Facilitating research OSU and HSU
- WQ and Fish Disease
- WQ and Tribal health and altered diet
- Funding study on the "fate of nutrients" within Klamath River

FERC & TMDL deadlines
“Endgame reality”

- The Collaborative Process and stakeholders
- Study Plans and the burden of proof
- Limitations, Confusion and Lack of Data
- Science, Environment & Politics
- 2006 Deadline and Implications
- Money $$ and Time
- Tribal Trust species and Tribal culture

KLAMATH RIVER FISH KILL, SEPTEMBER 2002

Fish Disease and Water Quality



Life cycle of *Ceratomyxa shasta* showing release of the myxospore stage from the infected fish, the polychaete alternate host, and release of the alternate actinospore stage from the polychaete. A. released actinospores, B. electron micrograph of actinospore packet in the polychaete, C. polychaete, D. infected fish, E. histological section of infected intestine, F. trophozoite stages, G. myxopsore (Bartholomew et al. 1997).

WQ and Fish Diseases

- Knowledge of relationships between WQ parameters and Fish Disease is growing
- Limited by: Funding, Time and Imagination
- Primary effects: Temp., DO, nutrients, flow
- Q10 index and biokinetics
- Secondary effects: Algae, hatchery, fish crowding
- Scientific generalists, water czar, BOR